

What is claim d is:

1. A communication system for transmitting multicast data to a plurality of mobile stations joining in a multicast group, the system comprising:

5 a category manager configured to categorize reception capability values showing reception capabilities necessary for receiving multicast data in the mobile stations;

a reception capability collector configured to collect the reception capability values of the mobile stations;

10 a decider configured to decide a hierarchical structure of the multicast data from a plurality of categories corresponding to the collected reception capability values of the mobile stations; and

a transmitter configured to transmit the multicast data  
15 using the decided hierarchical structure.

2. A communication system for transmitting multicast data to a plurality of mobile stations joining in a multicast group, the system comprising:

20 a category manager configured to categorize reception capability values showing reception capabilities necessary for receiving multicast data in the mobile stations in association with a type of the multicast data;

a decider configured to decide a hierarchical structure  
25 of the multicast data from a plurality of the categories; and

a transmitter configured to transmit the multicast data using the decided hierarchical structure.

3. The communication system according to claim 2, the system

further comprising:

a reception capability collector configured to collect the reception capability values of the mobile stations; and

5 a notice information transmitter configured to transmit notice information including information regarding the category, in accordance with the collected reception capability values of the mobile stations.

4. The communication system according to claim 3, wherein  
10 the category manager categorizes the collected reception capability values of the mobile stations in association with the type of the multicast data.

5. The communication system according to claim 3, the system  
15 further comprising a notice information judger configured to judge whether or not the notice information should be transmitted in accordance with the collected reception capability values of the mobile stations and presence information for each of the mobile stations, and to instruct  
20 the notice information transmitter to transmit the notice information in accordance with the judgment.

6. The communication system according to claim 1 or 2, wherein the transmitter transmits the multicast data to the  
25 mobile stations in accordance with a transmission request from the mobile stations.

7. The communication system according to claim 1 or 2, wherein the reception capability value of the mobile stations

is defined by at least one of a demodulation method, a reception buffer size, a processing capability, a decoding method, a interleaving length, a number of despreaders and a number of decoders.

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8. The communication system according to claim 1 or 2, wherein the hierarchical structure is defined by at least one of a coding rate, a number of repeating bits, a number of thinned bits, an interleaving length, a number of multiplexed codes,  
10 a number of information blocks, a modulation method, a coding method and transmission power.

9. A communication method for transmitting multicast data to a plurality of mobile stations joining in a multicast group,  
15 the method comprising the steps of:

categorizing reception capability values showing reception capabilities necessary for receiving multicast data in the mobile stations;

collecting the reception capability values of the mobile  
20 stations;

deciding a hierarchical structure of the multicast data from a plurality of categories corresponding to the collected reception capability values of the mobile stations; and

transmitting the multicast data using the decided  
25 hierarchical structure.

10. A mobile station for receiving multicast data, the station comprising:

a category memory configured to store a category to which

a reception capability value of the mobile station belongs;

a receiver configured to receive the multicast data transmitted using a hierarchical structure; and

a selector configured to select multicast data  
5 corresponding to the category stored in the category memory from among the received multicast data.

11. The mobile station according to claim 10, wherein the category memory is updated in accordance with notice  
10 information transmitted from a radio station.

12. The mobile station according to claim 10, the station further comprising a transmission requester configured to transmit a transmission request for multicast data to a radio  
15 station.